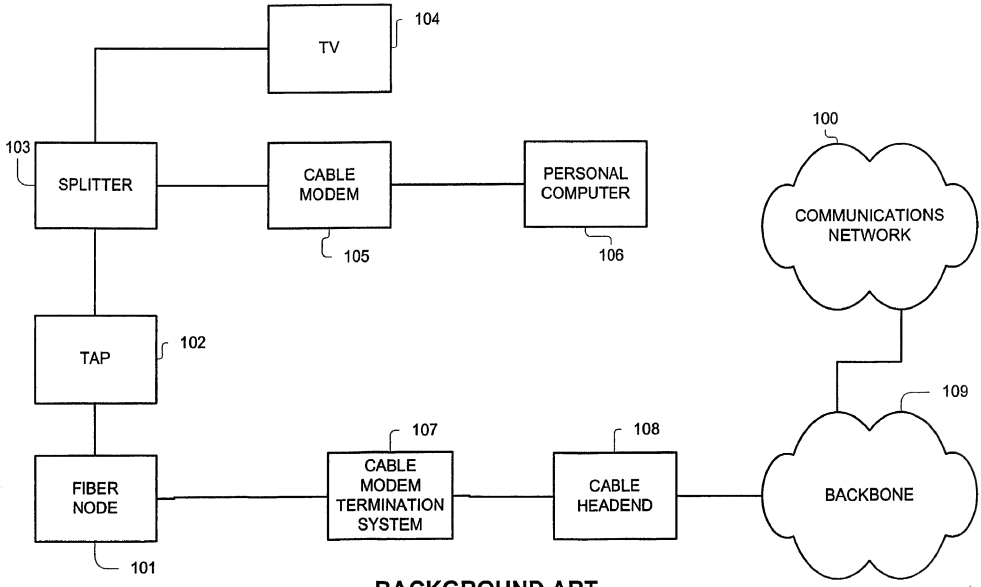
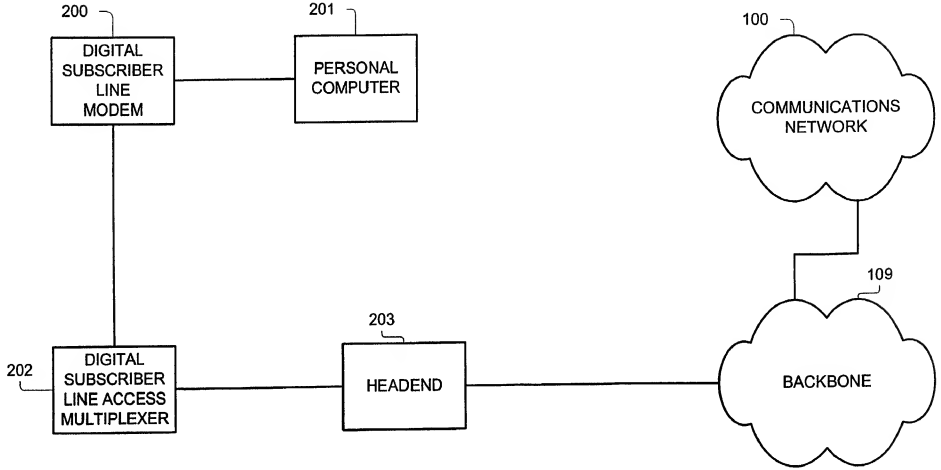
SERIAL NO: 09/784,069
INV: Mark A. Podracky
DOCKET # 202586US-8
SHEET 1 OF 15



BACKGROUND ART

FIGURE 1

SERIAL NO: 09/784,069
INV: Mark A. Podracky
DOCKET # 202586US-8
SHEET 2 OF 15



BACKGROUND ART

FIGURE 2

SERIAL NO: 09/784,069
INV: Mark A. Podracky
DOCKET # 202586US-8
SHEET 3 OF 15

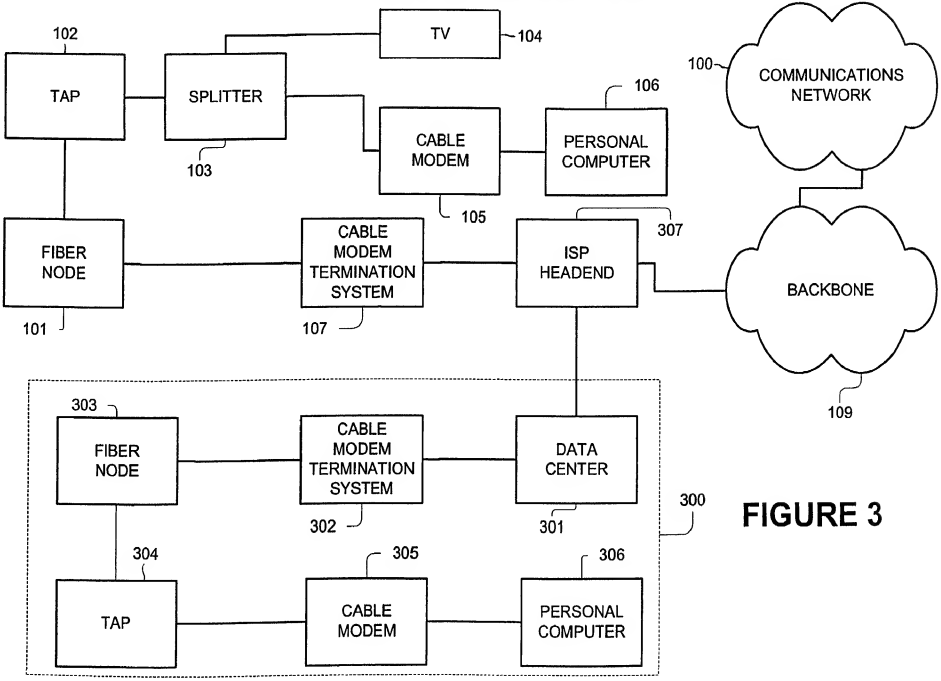


FIGURE 3

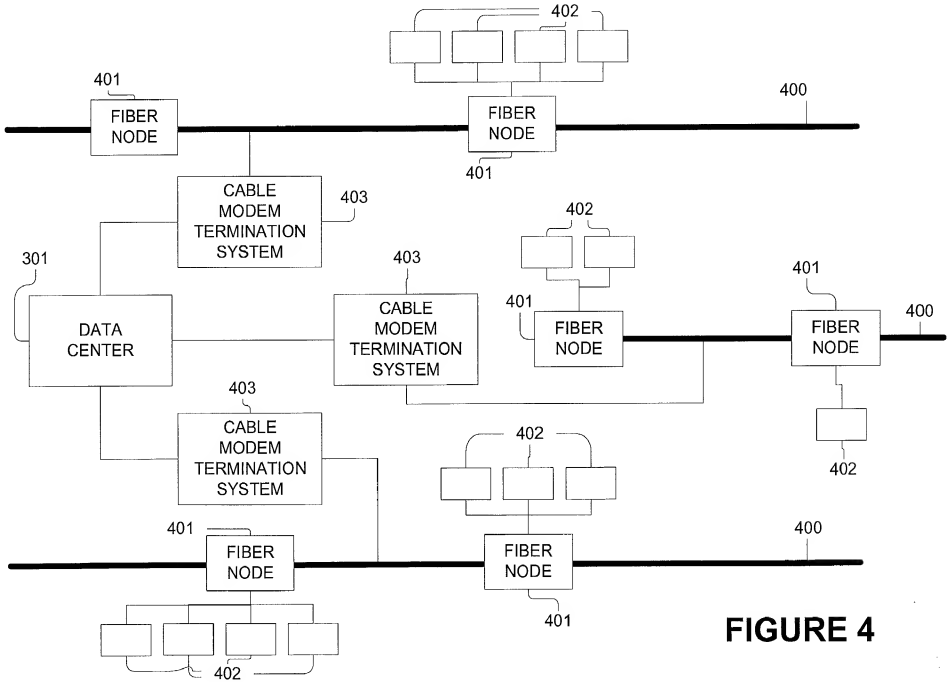

402
401
FIBER NODE
400
FIBER NODE
401
CABLE MODEM TERMINATION SYSTEM
403
402
301
403
401
DATA CENTER
CABLE MODEM TERMINATION SYSTEM
FIBER NODE
401
FIBER NODE
400
403
CABLE MODEM TERMINATION SYSTEM
402
402
401
FIBER NODE
400
FIBER NODE
401
402

FIGURE 4

PUSHED 05016260

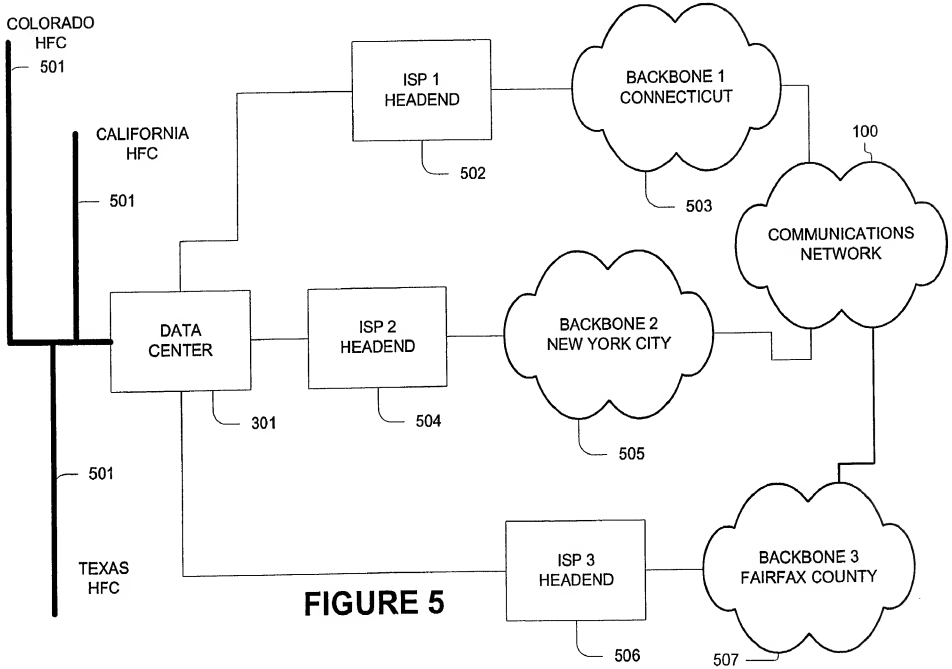


FIGURE 5

SERIAL NO: 09/784,069
INV: Mark A. Podracky
DOCKET # 202586US-8
SHEET 6 OF 15

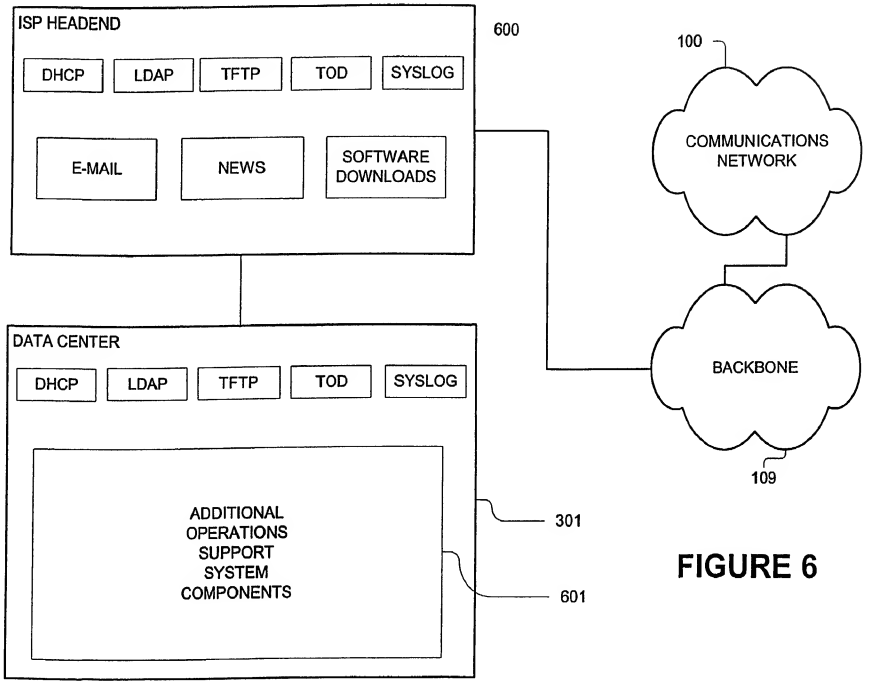
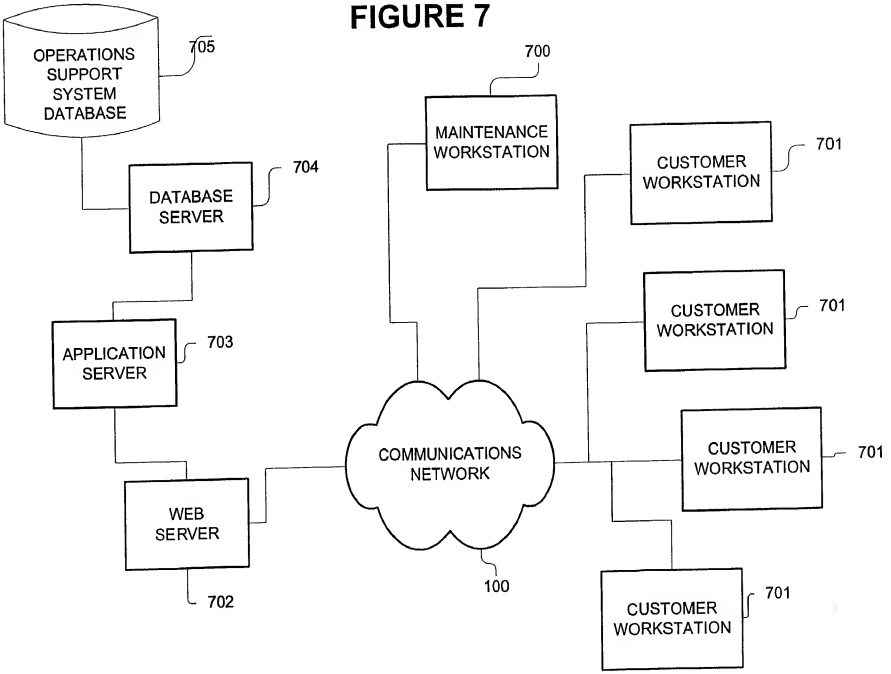


FIGURE 6

10570360.020

FIGURE 7



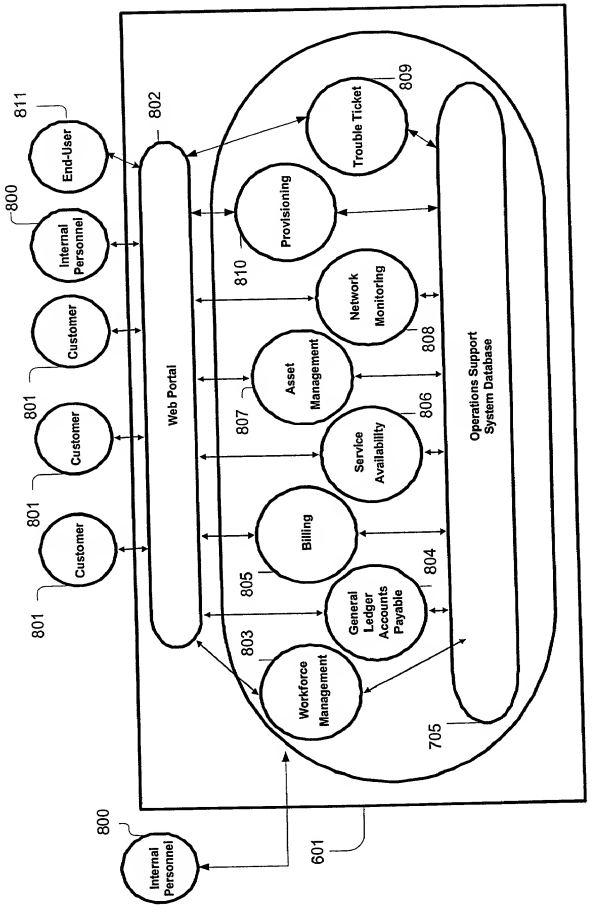

Internal Personnel
800
601
Customer
Customer
Customer
Customer
Internal Personnel
End-User
801
801
801
800
811
802
Web Portal
Workforce Management
General Ledger Accounts Payable
Billing
Service Availability
Asset Management
Network Monitoring
Provisioning
Trouble Ticket
803
804
805
806
807
808
810
809
705
Operations Support System Database

FIGURE 8

PTO-1449 (5/08)

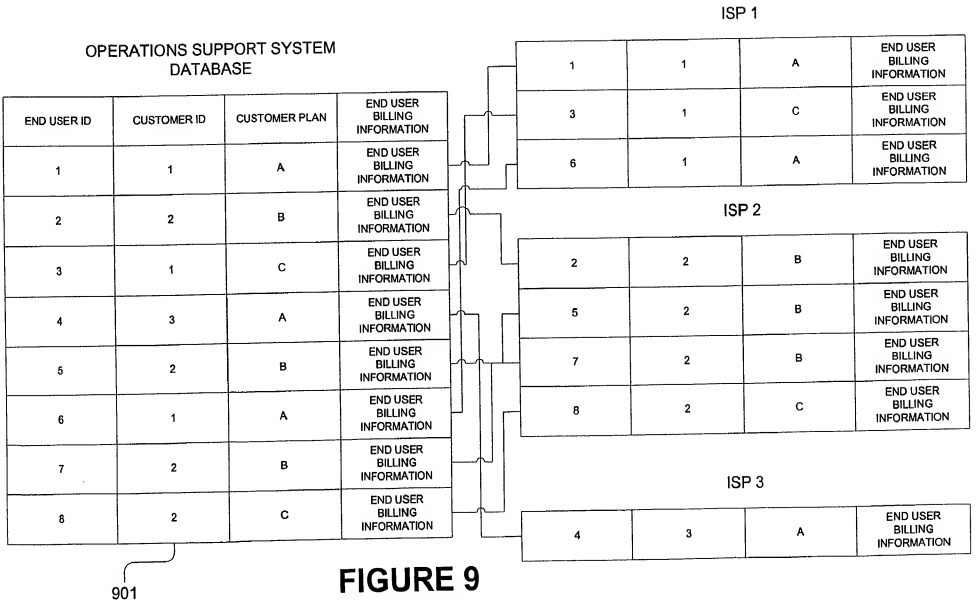


FIGURE 9

FIGURE 10

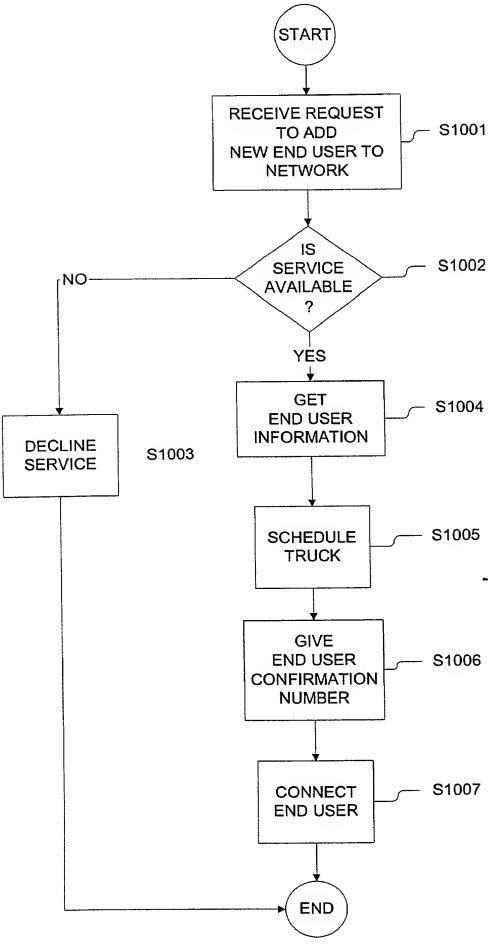

START
RECEIVE REQUEST TO ADD NEW END USER TO NETWORK
S1001
IS SERVICE AVAILABLE ?
S1002
NO
YES
DECLINE SERVICE
S1003
GET END USER INFORMATION
S1004
SCHEDULE TRUCK
S1005
GIVE END USER CONFIRMATION NUMBER
S1006
CONNECT END USER
S1007
END

FIGURE 11

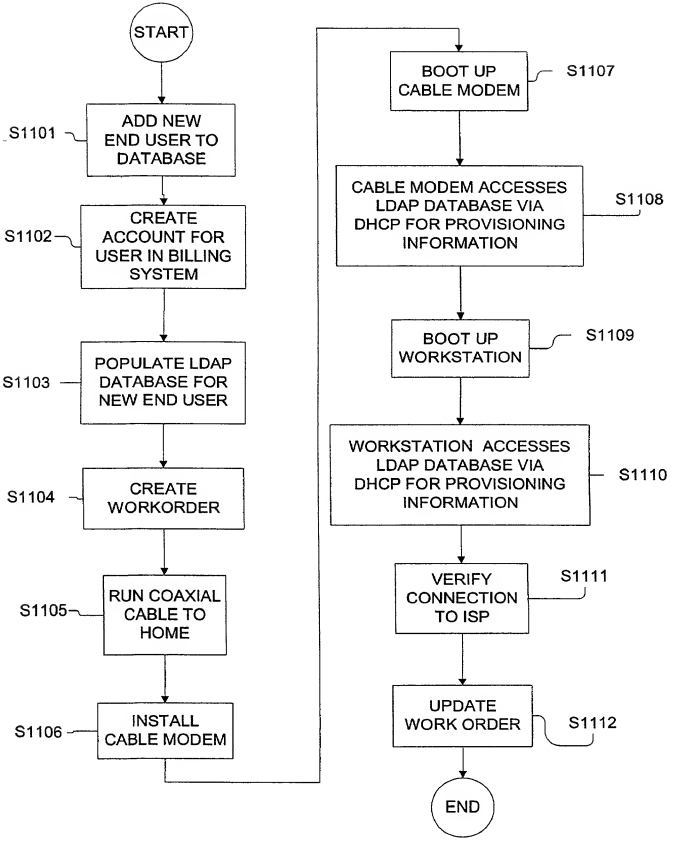

START
S1101
ADD NEW END USER TO DATABASE
S1102
CREATE ACCOUNT FOR USER IN BILLING SYSTEM
S1103
POPULATE LDAP DATABASE FOR NEW END USER
S1104
CREATE WORKORDER
S1105
RUN COAXIAL CABLE TO HOME
S1106
INSTALL CABLE MODEM
S1107
BOOT UP CABLE MODEM
S1108
CABLE MODEM ACCESSES LDAP DATABASE VIA DHCP FOR PROVISIONING INFORMATION
S1109
BOOT UP WORKSTATION
S1110
WORKSTATION ACCESSES LDAP DATABASE VIA DHCP FOR PROVISIONING INFORMATION
S1111
VERIFY CONNECTION TO ISP
S1112
UPDATE WORK ORDER
END

FIGURE 12

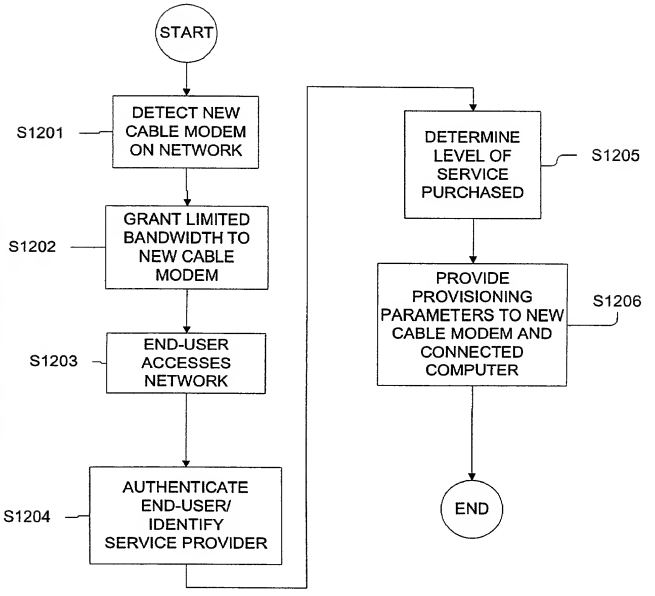

START
S1201
DETECT NEW CABLE MODEM ON NETWORK
S1202
GRANT LIMITED BANDWIDTH TO NEW CABLE MODEM
S1203
END-USER ACCESSES NETWORK
S1204
AUTHENTICATE END-USER/ IDENTIFY SERVICE PROVIDER
S1205
DETERMINE LEVEL OF SERVICE PURCHASED
S1206
PROVIDE PROVISIONING PARAMETERS TO NEW CABLE MODEM AND CONNECTED COMPUTER
END

FIGURE 13

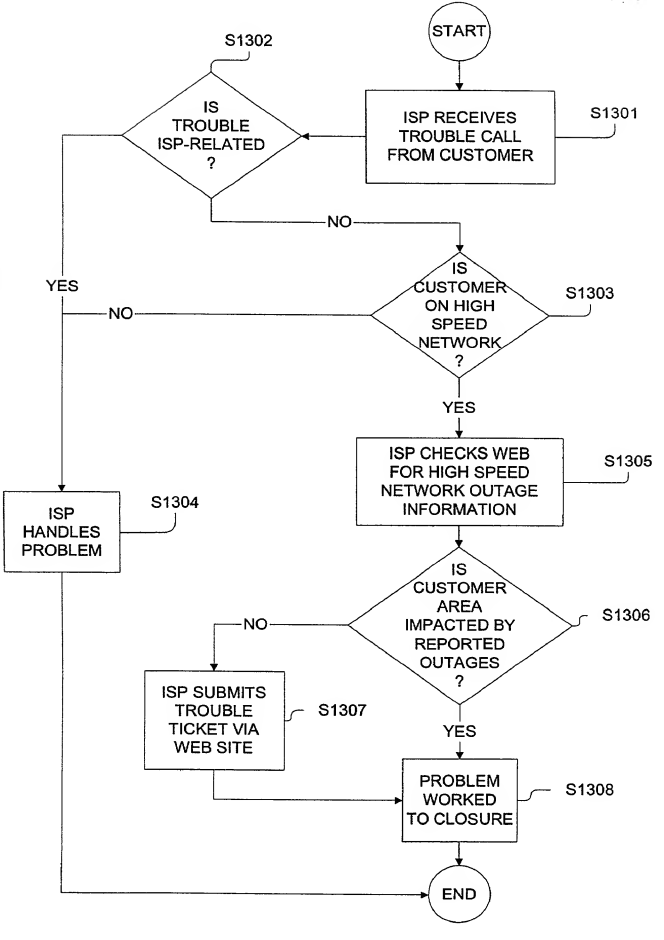

START
S1301
ISP RECEIVES TROUBLE CALL FROM CUSTOMER
S1302
IS TROUBLE ISP-RELATED ?
NO
YES
S1303
IS CUSTOMER ON HIGH SPEED NETWORK ?
NO
YES
S1304
ISP HANDLES PROBLEM
S1305
ISP CHECKS WEB FOR HIGH SPEED NETWORK OUTAGE INFORMATION
S1306
IS CUSTOMER AREA IMPACTED BY REPORTED OUTAGES ?
NO
YES
S1307
ISP SUBMITS TROUBLE TICKET VIA WEB SITE
S1308
PROBLEM WORKED TO CLOSURE
END

FIGURE 14

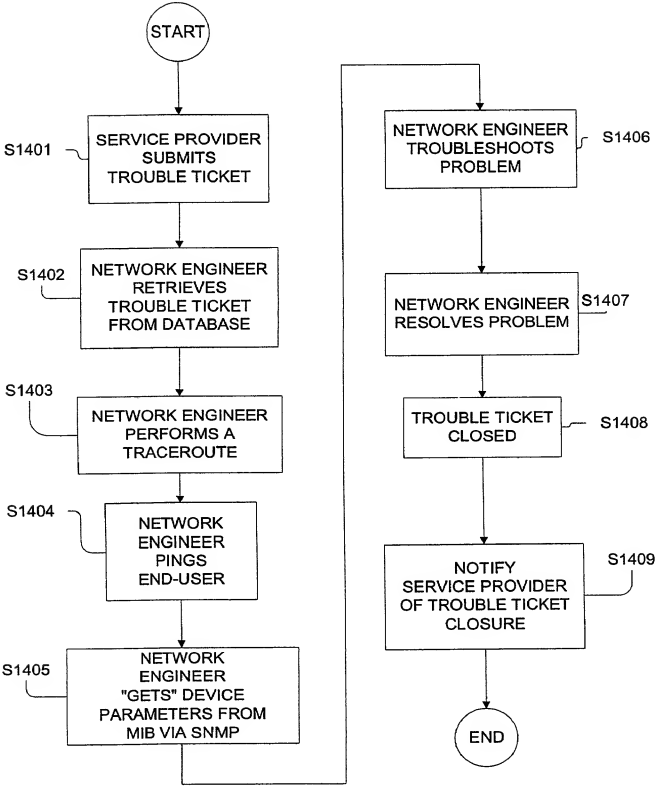
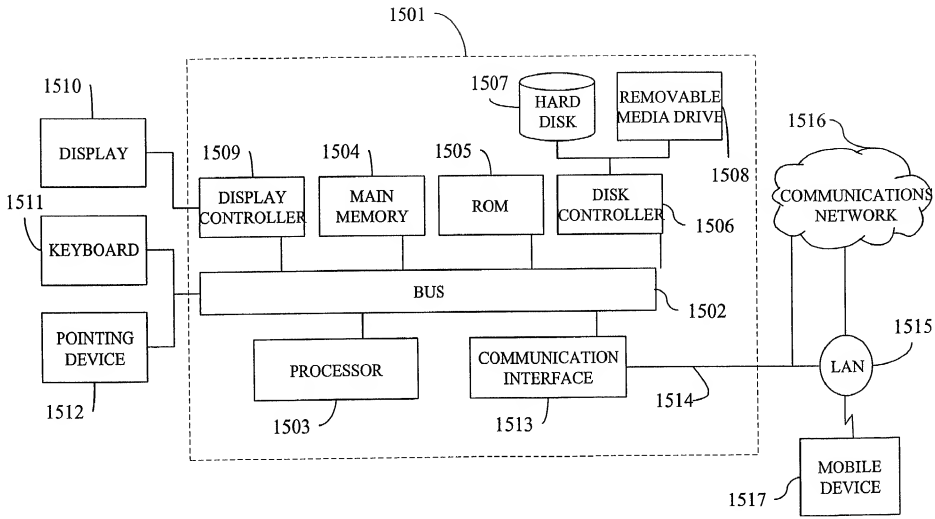

START
S1401
SERVICE PROVIDER SUBMITS TROUBLE TICKET
S1402
NETWORK ENGINEER RETRIEVES TROUBLE TICKET FROM DATABASE
S1403
NETWORK ENGINEER PERFORMS A TRACEROUTE
S1404
NETWORK ENGINEER PINGS END-USER
S1405
NETWORK ENGINEER "GETS" DEVICE PARAMETERS FROM MIB VIA SNMP
S1406
NETWORK ENGINEER TROUBLESHOOTS PROBLEM
S1407
NETWORK ENGINEER RESOLVES PROBLEM
S1408
TROUBLE TICKET CLOSED
S1409
NOTIFY SERVICE PROVIDER OF TROUBLE TICKET CLOSURE
END

FIGURE 15


1501
1510
DISPLAY
1511
KEYBOARD
POINTING DEVICE
1512
1509
DISPLAY CONTROLLER
1504
MAIN MEMORY
1505
ROM
1507
HARD DISK
REMOVABLE MEDIA DRIVE
1508
DISK CONTROLLER
1506
BUS
1502
PROCESSOR
1503
COMMUNICATION INTERFACE
1513
1514
1516
COMMUNICATIONS NETWORK
1515
LAN
MOBILE DEVICE
1517